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*Attorneys for Plaintiffs,
Telecommunications Research
Laboratories d/b/a TR Labs and
TR Technologies, Inc.*

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY
TRENTON DIVISION**

TELECOMMUNICATIONS RESEARCH
LABORATORIES d/b/a TR LABS, a Canadian
Not For Profit Corporation, and TR
TECHNOLOGIES, INC., a Canadian
Corporation,

Plaintiffs,

v.

EARTHLINK, INC., a Delaware Corporation,
ZAYO GROUP, LLC, a Delaware Corporation,
CHARTER COMMUNICATIONS, INC., a
Delaware Corporation, and MASERGY
COMMUNICATIONS INC., a Texas
Corporation,

Defendants.

Civ. No. 3:12-06401-PGS-DEA

JURY DEMAND

ELECTRONICALLY FILED

AMENDED COMPLAINT

The plaintiffs, Telecommunications Research Laboratories, formerly known as Alberta Telecommunications Research Centre, and doing business as TR Labs (“TR Labs”), and TR Technologies, Inc. (“TR Tech”) (collectively “plaintiffs”) allege in this matter as follows:

FACTUAL BACKGROUND

Plaintiffs

1. TR Labs is Canada’s largest non-profit research consortium with its membership including universities, companies, and government agencies. TR Labs has offices throughout western Canada, and its principal place of business is 9107 116th Street, Edmonton, Alberta, Canada T6G 2V4.

2. Among TR Labs’ members is the University of Alberta in Edmonton, Canada.

3. TR Tech is the exclusive licensee of the patents owned by TR Labs.

The TR Labs Patents

4. TR Labs is the owner by assignment of U.S. Patent No. 6,914,880, entitled *Protection of routers in a telecommunications network* (“the ‘880 patent”), U.S. Patent No. 6,421,349, entitled *Distributed preconfiguration of spare capacity in closed paths for network restoration* (“the ‘349 patent”), U.S. Patent No. 7,260,059, entitled *Evolution of a telecommunications network from ring to mesh structure* (“the ‘059 patent”), U.S. Patent No. 6,404,734, entitled *Scalable network restoration device* (“the ‘734 patent”), U.S. Patent No. 5,850,505 entitled *Method for*

preconfiguring a network to withstand anticipated failures (“the ‘505 patent”), U.S. Patent No. 6,377,543 entitled *Path restoration of networks* (“the ‘543 patent”), and U.S. Patent No. 6,654,379 (“the ‘379 patent”) entitled *Integrated ring-mesh network* (collectively “the TR Labs patents”) (attached as Exhibits A-G).

5. The ‘880 patent issued on July 5, 2005 based upon an application filed on May 19, 1999. The ‘349 patent issued on July 16, 2002 from an application filed on July 11, 1997. The ‘059 patent issued on August 21, 2007 from an application filed on June 28, 2002. The ‘734 patent issued on June 11, 2002 from an application filed on October 6, 1998. The ‘505 patent issued on December 15, 1998 based upon an application filed on November 1, 1995. The ‘543 patent issued on April 23, 2002 based upon an application filed on October 20, 1997. The ‘379 patent issued on November 25, 2003 based upon an application filed on October 7, 1999.

Dr. Wayne Grover

6. The first named inventor on the TR Labs patents is TR Labs’ former Chief Scientist in Network Systems Research, Dr. Wayne D. Grover.

7. In addition to his position at TR Labs, Dr. Grover was a Professor in the Department of Electrical and Computer Engineering at the University of Alberta in Edmonton, Canada.

8. Dr. Grover is a Fellow of the Institute of Electronic and Electrical Engineers (“IEEE”), a title conferred on those engineers who have demonstrated outstanding proficiency and have achieved distinction in their profession. He is also

a Fellow of the Engineering Institute of Canada, a title awarded by that organization for similar scientific achievement.

9. Among his numerous awards, in 2001-2002, the Natural Science and Engineering Research Council of Canada named Dr. Grover an E.W.R Steacie Fellow, which recognizes highly promising scientists and engineers who are faculty members of Canadian universities. Dr. Grover was awarded the IEEE's 1999 W.R.G. Baker Prize Paper award for the most outstanding paper reporting original work in an IEEE publication, and that same year was named Canada's Outstanding Engineer in Canada by the IEEE.

The Defendants

Earthlink, Inc.

10. Defendant Earthlink, Inc. ("Earthlink") is a Delaware corporation with a principal place of business at 1375 Peachtree Street, Atlanta, Georgia 30309.

11. Earthlink operates and/or employs, either directly or indirectly, mesh telecommunications networks in the United States.

12. Earthlink operates and/or employs, or has operated or has employed, either directly or indirectly, ring telecommunications networks that have been converted to mesh telecommunication networks in the United States.

13. The mesh telecommunications networks operated and/or employed by Earthlink have deployed at least Cisco ONS 15454 Multiservice platforms, Fujitsu ROADM devices, Ciena CoreDirector Multiservice Optical Switches, and/or Cisco

CRS-1 routers, in addition to other components that are connected to these devices for the purpose of transmitting voice and data traffic.

14. The mesh telecommunications networks operated and/or employed by Earthlink utilize the functionality of the afore-referenced devices in a manner designed to restore the flow of voice and data traffic in the event of the failure of a node, circuit, or path during the normal operation of such networks.

15. The mesh telecommunications networks operated and/or employed by Earthlink are designed to, and do, interconnect with one another for the transmission of voice and data traffic both when such networks are in normal operation mode, and when there is a failure of a node, circuit, span or path in such networks.

16. The mesh telecommunications networks and networks converted from ring to mesh networks operated directly or indirectly by Earthlink infringe the claims of the TR Labs patents in violation of 35 U.S.C. § 271.

Zayo Group, LLC

17. Defendant Zayo Group, LLC (“Zayo”) is a Delaware corporation with a principal place of business at 400 Centennial Parkway, Suite 200, Louisville, Colorado 80027.

18. Zayo acquired AboveNet, Inc. (“AboveNet”), including the telecommunications networks owned and operated by AboveNet.

19. AboveNet operates and/or employs, either directly or indirectly, mesh telecommunications networks in the United States.

20. AboveNet operates and/or employs, or has operated or employed, either directly or indirectly, ring telecommunications networks that have been converted to mesh telecommunication networks in the United States.

21. The mesh telecommunications networks operated and/or employed by AboveNet have deployed at least Cisco ONS 15454 Multiservice platforms, Fujitsu ROADM devices, Ciena CoreDirector Multiservice Optical Switches, and/or Cisco CRS-1 routers, in addition to other components that are connected to these devices for the purpose of transmitting voice and data traffic.

22. The mesh telecommunications networks operated and/or employed by AboveNet utilize the functionality of the afore-referenced devices in a manner designed to restore the flow of voice and data traffic in the event of the failure of a node, circuit, or path during the normal operation of such networks.

23. The mesh telecommunications networks operated and/or employed by AboveNet are designed to, and do, interconnect with one another for the transmission of voice and data traffic both when such networks are in normal operation mode, and when there is a failure of a node, circuit, span or path in such networks.

24. The mesh telecommunications networks and networks converted from ring to mesh networks operated directly or indirectly by AboveNet infringe the claims of the TR Labs patents in violation of 35 U.S.C. § 271.

Charter Communications, Inc.

25. Defendant Charter Communications, Inc. (“Charter”) is a Delaware corporation with a principal place of business at 12405 Powercourt Drive, St. Louis, Missouri 63131.

26. Charter operates and/or employs, either directly or indirectly, mesh telecommunications networks in the United States.

27. Charter operates and/or employs, or has operated or employed, either directly or indirectly, ring telecommunications networks that have been converted to mesh telecommunication networks in the United States.

28. The mesh telecommunications networks operated and/or employed by Charter have deployed at least Cisco ONS 15454 Multiservice platforms, Fujitsu ROADM devices, Ciena CoreDirector Multiservice Optical Switches, and/or Cisco CRS-1 routers, in addition to other components that are connected to these devices for the purpose of transmitting voice and data traffic.

29. The mesh telecommunications networks operated and/or employed by Charter utilize the functionality of the afore-referenced devices in a manner designed to restore the flow of voice and data traffic in the event of the failure of a node, circuit, or path during the normal operation of such networks.

30. The mesh telecommunications networks operated and/or employed by Charter are designed to, and do, interconnect with one another for the transmission of voice and data traffic both when such networks are in normal operation mode, and when there is a failure of a node, circuit, span or path in such networks.

31. The mesh telecommunications networks and networks converted from ring to mesh networks operated directly or indirectly by Charter infringe the claims of the TR Labs patents in violation of 35 U.S.C. § 271.

Masergy Communications Inc.

32. Defendant Masergy Communications Inc. (“Masergy”) is a Texas corporation with a principal place of business at 2740 North Dallas Parkway, No. 260, Plano, Texas 75093-4847.

33. Masergy operates and/or employs, either directly or indirectly, mesh telecommunications networks in the United States.

34. Masergy operates and/or employs, or has operated or employed, either directly or indirectly, ring telecommunications networks that have been converted to mesh telecommunication networks in the United States.

35. The mesh telecommunications networks operated and/or employed by Masergy have deployed at least Cisco ONS 15454 Multiservice platforms, Fujitsu ROADM devices, Ciena CoreDirector Multiservice Optical Switches, and/or Cisco CRS-1 routers, in addition to other components that are connected to these devices for the purpose of transmitting voice and data traffic.

36. The mesh telecommunications networks operated and/or employed by Masergy utilize the functionality of the afore-referenced devices in a manner designed to restore the flow of voice and data traffic in the event of the failure of a node, circuit, or path during the normal operation of such networks.

37. The mesh telecommunications networks operated and/or employed by Masergy are designed to, and do, interconnect with one another for the transmission of voice and data traffic both when such networks are in normal operation mode, and when there is a failure of a node, circuit, span or path in such networks.

38. The mesh telecommunications networks and networks converted from ring to mesh networks operated directly or indirectly by Masergy infringe the claims of the TR Labs patents in violation of 35 U.S.C. § 271.

JURISDICTION, VENUE AND JOINDER

39. The defendants, at all relevant times, have been doing business in this Judicial District.

40. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

41. Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1400(b).

42. Each of the defendants utilize the afore-referenced equipment in infringing the patents in suit, making this matter arising out of the same transaction, occurrence, or series of transactions or occurrences, and making joinder of the parties in this matter proper pursuant to 35 U.S.C. § 299(a).

COUNT I – PATENT INFRINGEMENT

43. The plaintiffs incorporate by reference paragraphs 1-42, above.

44. The defendants have directly infringed the claims of the TR Labs patents by operating, either directly or indirectly, and either alone or in conjunction with the other defendants, mesh telecommunications networks that are covered by such claims in violation of 35 U.S.C. § 271.

45. The plaintiffs are irreparably harmed by the defendants' infringement in view of the finite patent monopoly that the plaintiffs enjoy as the owner and exclusive licensee of the TR Labs patents.

PRAYERS FOR RELIEF

WHEREFORE, the plaintiffs respectfully request that this Court:

- a) Find that the defendants infringe the TR Labs patents;
- b) Order the defendants to pay the plaintiffs damages equal to no less than a reasonable royalty to compensate for the infringement of the TR Labs patents pursuant to 35 U.S.C. § 284;
- c) Order the defendants to pay the plaintiffs prejudgment interest;
- d) Find this case to be exceptional;
- e) Order the defendants to pay attorneys' fees pursuant to 35 U.S.C. § 285;
- f) Enjoin the defendants from further infringement of the TR Labs patents; and
- g) Award whatever additional relief the Court finds just and equitable.

Respectfully submitted,

Date: November 16, 2012

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